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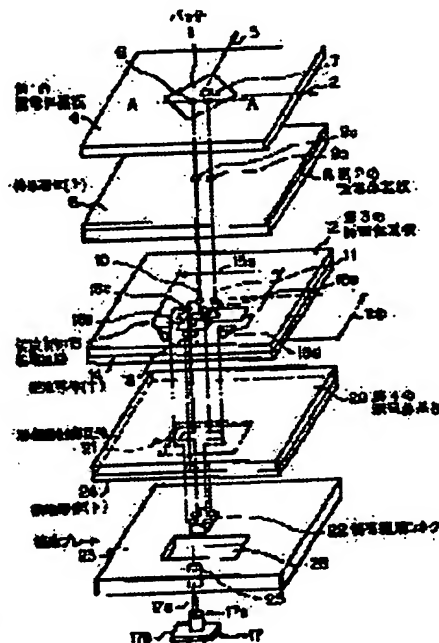
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## (54) MICROSTRIP ANTENNA

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To permit a microstrip antenna to be switched to the four kinds of polarized wave, i.e., vertically polarized wave, horizontally polarized wave, left turning polarized wave and right turning polarized wave and to be suitable as an element antenna to be used for phased array by generating vertically polarized wave or horizontally polarized wave from a radiation system when phase difference is a specified value and generating left turning polarized wave or right turning polarized wave at the time of another specified value.

**SOLUTION:** A polarized wave control power feeding circuit 13 is arranged on the upper surface of a third guiding body substrate 12 and a phase shifting equipment control circuit 21 is arranged on the rear surface of the fourth dielectric substrate 20. The polarized wave control power feeding circuit 13 and the phase shifting equipment control circuit 21 constitute a polarized wave change-over circuit. The polarized wave change-over circuit executes control so as to permit phase difference generated by high frequency output signals which are distributed to two with equal amplitude and an equal phase between two power feeding points to be  $0^\circ$ ,  $90^\circ$ ,  $180^\circ$  and  $270^\circ$ . Then, vertically polarized wave or horizontally polarized wave is generated from the radiation system when phase difference is  $0^\circ$  and  $180^\circ$  and left turning polarized wave or right turning polarized wave is generated at the time of  $90^\circ$  and  $270^\circ$ .



## LEGAL STATUS

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